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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,651	01/15/2004	Peter Emile Stephan Joseph Asselbergs	FNL0301US	6353
25784	7590	12/17/2004	EXAMINER	
MICHAEL O. SCHEINBERG P.O. BOX 164140 AUSTIN, TX 78716-4140			SMITH, JOHNNIE L	
			ART UNIT	PAPER NUMBER
			2881	

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/758,651

Applicant(s)

ASSELBERGS ET AL.

Examiner

Johnnie L Smith II

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 January 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0927, 0115.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 16, 17, and 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claims 16 and 30 recites the limitation "spring means". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-15 and 18-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6,781,125 (Tokuda et al) filed September 24, 2001, published May 2, 2002. In reference to claim 1, Tokuda teaches a method for the manufacture and transmissive irradiation of a sample, having steps of: providing a particle-optical system having a chamber and suitable for the generation of an electron beam and an intersecting ion beam in said chamber; providing a specimen within the chamber, carried by a manipulator; irradiating the specimen with the ion beam so as to cut a sample from the specimen; relatively displacing the sample thus cut to a sample holder than can be manipulated; attaching the sample to the sample holder; using an electron beam to perform transmissive irradiation of the sample thus attached to the sample holder (column 5 line 13- column 6 line 55), Tokuda discloses all elements being claimed herein but failed to clearly disclose the chamber being an internal low-pressure chamber. It would have been obvious to one of ordinary skill in the art at the time of the invention to have such a chamber since Tokuda teaches the use of vacuum sample chamber (column 5 line 13-16).

7. In reference to claims 2-6, Tokuda teaches the method wherein an electron detection surface is positioned at the side of the sample opposite to the electron beam (column 6 lines 8-15), wherein the sample is irradiated with the ion beam, for the purpose of further processing the sample; the sample holder is rotated about a rotational axis that is perpendicular to the electron beam and to the ion beam; the rotational axis extends through the point of intersection of the electron beam and the ion beam (column 6 line 55- column 7 line 27); and in that rotation about the rotational axis is performed, in combination with rotation of the sample holder about a manipulator rotational axis that extends parallel to said rotational axis, through a range of at least 180 degrees (column 8 lines 49-62).

8. In reference to claim 7, Tokuda teaches a particle optical system, in particular having a chamber containing manipulator means for at least two objects to be irradiated, an electron source and an ion source for the purpose of allowing irradiation of an object, carried by the manipulating means, using an electron beam and an ion beam, respectively, the manipulating means comprising a number of first manipulation parts, which are movable relative to one another and collectively movable relative to the electron beam and the ion beam according to a first set of degrees of freedom, an external one of which first manipulation parts comprises a first object carrier, for allowing, in the case of a first object carried by the first

object carrier and at a first position of the manipulating means, reflective irradiation of said first object using an electron beam and/or irradiation of said first object using an ion beam, the manipulating means further having at least one second manipulation part comprising a second object carrier, the system further comprising displacing means for relatively displacing an object from the first object carrier to the second object carrier, characterized in that the manipulating means are embodied so as to allow, in the case of a second object carried by the second object carrier and at a second position of the manipulating means, transmissive or reflective irradiation of said second object by an electron beam and/or irradiation of said second object by an ion beam (column 5 line 13-column 7 line 27, figure 3). Tokuda discloses all elements being claimed herein but failed to clearly disclose the chamber being an internal low-pressure chamber. It would have been obvious to one of ordinary skill in the art at the time of the invention to have such a chamber since Tokuda teaches the use of vacuum sample chamber (column 5 line 13-16).

9. In reference to claims 8-15, Tokuda teaches a system wherein the second manipulation part is movable in at least one further degree of freedom with respect to the electron beam and the ion beam, as well as with respect to a remaining portion of the manipulating means; the at least one further degree of freedom is a

rotation about a rotational axis that extends perpendicular to the electron beam and to the ion beam (column 9 line 56-column 10 line 62); the rotation about the rotational axis can occur through a range of at least 180 degrees, combined, if desired, with rotation about a manipulator rotational axis that extends parallel to said rotational axis (column 8 lines 49-62); the rotational axis extends through the point of intersection of the electron beam and the ion beam (figure 3); the motion according to said at least one further degree of freedom can only occur in combination with motion according to one degree of freedom of the first set of degrees of freedom (column 9 line 56- column 10 line 62); and the system comprises an electron detection surface at the side of the second object carried by the second object holder that is remote from the electron beam (figure 3).

10. In reference to claims 18-29, Tokuda teaches a system wherein the sample is irradiated with the ion beam, for the purpose of further processing the sample; the sample holder is rotated about a rotational axis that is perpendicular to the electron beam and to the ion beam (column 6 line 55- column 7 line 27); the rotation about the rotational axis is performed, in combination with rotation of the sample holder about a manipulator rotational axis that extends parallel to said rotational axis, through a range of at least 180 degrees (column 8 lines 49-62); the motion according to said at least one further degree of freedom can only occur in

combination with motion according to one degree of freedom of the first set of degrees of freedom (column 9 line 56- column 10 line 62); and the system comprises an electron detection surface at the side of the second object carried by the second object holder that is remote from the electron beam (figures 1, 3, and 6).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure; US patent 6,188,068 (Shaapur et al), 6,538,254 (Tomimatsu et al), 6,664,552 (Shichi et al), and US patent publication 2002/0050565 (Tokuda et al). All of the cited US references contain art similar to that being claimed by applicant, more specifically, methods and apparatuses for processing micro samples.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnnie L Smith II whose telephone number is 571-272-2481. The examiner can normally be reached on Monday-Thursday 7-4 P.M. and Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee can be reached on 571-272-2477. The fax

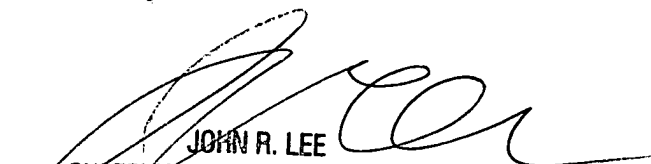
phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JLSII

Johnnie L Smith II
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